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ASIAN BUREAU OF FINANCE
AND ECONOMIC RESEARCH

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A Message from the President and Executive Committee of ABFER



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Dear readers, we would like to welcome you to the first ABFER Research Digest. This Digest summarizes selected papers presented in the inaugural ABFER Annual Conference 2013 in May 2013 (<http://www.abfer.org/programme.html>).

The ABFER was formed by accomplished academics from the US, Europe and Asia Pacific. We also receive much support from industry leaders. The enthusiastic support from academics and practitioners are testimony to ABFER's worthy objectives.

The ABFER's objectives are to:

- promote Asia-Pacific oriented financial and economic research at local, regional and international levels;
- connect globally prominent academic researchers, practitioners and public policy decision-makers on Asia-Pacific related financial and economic issues; and
- enhance the research capabilities and development of strong clusters of finance and economic research groups in academic institutions and other institutions in Singapore and Asia-Pacific

Our 2013 workshops and this inaugural Digest are just the beginning. We strive to develop a vibrant community that supports our collective advancement in high impact research in finance and economic research in Asia-Pacific.

Please feel free to share this Digest with your friends and colleagues. We hope to see you at our next edition.

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Government-owned Banks and Monetary Stimulation



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Triggered by the Global Financial Crisis, the great recession saw monetary policies being assigned an extraordinarily heavy burden to stimulate economies as fiscal policies become crippled by high government debts and budgetary deficits. Researchers, many of whom use Asian experiences, observe that monetary policy efficacy is related to ownership structure of bank – government-owned banks are seen as an effective conduit of monetary stimulation but the implications on efficiency are uncertain. In their paper, Professors Lin, Srinivasan and Yamada discuss three pieces of research relating to the role governments play in monetary stimulation.

In “China’s Pseudo-monetary Policy,” Professors Yongheng Deng and Bernard Yeung (both at National University of Singapore), Randall Morck (University of Alberta) and Jing Wu (Tsinghua

University) show that China’s monetary stimulation boosted real GDP growth from an annualized 6.2 percent in the first quarter of 2009 to 11.9 percent in the first quarter of 2010. The speed and efficacy of China’s monetary stimulation came from state control over its banking system and its significant influence on the corporate sector. Beijing ordered state-owned banks to lend, and lend they did. Beijing ordered centrally-controlled state-owned enterprises (SOEs) to invest, and indeed, they invested.

However, their work also reveals what is now well known. Government-controlled banks chose to lend to government-controlled companies because it was politically “correct” and also because loans to them were safer as the government had a record of bailing out SOEs. SOEs were pressed to invest in spite of the downturn. They chose the easy-to-enter real estate sector, which was profitable and rather liquid compared to other types of real investment. The “Chinese” QE led to the Chinese house price inflation!

In “State-controlled Banks and the Effectiveness of Monetary Policy,” Professors Randall Morck (University of Alberta), Deniz Yavuz (Purdue University) and Bernard Yeung (National University of Singapore) address the issue of using country- and bank-level data. They demonstrate that at the country level, monetary policy is more significantly related to credit and fixed capital formation growth where a larger fraction of the banking system is state controlled. Bank-level data reveal that only government-controlled banks’ lending grew with money supply. These findings are strongest during downturns and in pre-election periods, when politicians are most

interested in stimulating lending and in countries where bureaucrats are more effective and sensitive to political pressure. Apparently, the government can “jawbone” state-owned banks to lend even when an economy is down.

In “The Bright Side of Lending by Government Owned Banks: Evidence from Japan,” Professors Yupeng Lin and Anand Srinivasan (both at National University of Singapore) and Takeshi Yamada (University of Adelaide) examine lending data and share prices for all listed companies in Japan from 1977 to 1996. This period covered the inflation of the Bubble Economy that burst in 1989 and the start of Japan’s “Lost Decade” of crisis and deflation. During this period, the Nikkei 225 Average peaked at 37,189 in December 1989. It has since dropped by four-fifths over the next 20 years.

Their findings are consistent with the two aforementioned papers. Government-owned banks lent more money during the crisis of the early 1990s. However, contrary to the Chinese experience, the beneficiaries in Japan were companies with lower cash flows that relied on external financing. There was no evidence that state-owned banks lent more money to “zombie” firms; zombie firms are non-profitable firms that survive because of easy credit from the banking system. Their findings indicate that state-owned banks were lending less money to zombie banks. When economic conditions were relatively normal, for every ¥100 that government-owned banks loaned, companies boosted investment by ¥84. During the crisis, the increase in investment showed further ¥51 response to state-owned bank lending, thus creating a total investment effect of ¥135 for every ¥100 loaned.

In general, the authors find little evidence that the state-owned banks' loans were used inefficiently. The researchers compare actual investments with Tobin's q – the ratio of market value and replacement value of the company. Those that received credits were high q companies, i.e., companies that should receive external financing.

There are some caveats to their research. The companies studied are publicly listed. Hence, alternative financing is available if they cannot borrow through conventional means. This implies that the results are likely to provide only a lower limit on the potential benefits of loans from government-owned banks.

The researchers caution that how much of the benefit of such lending

by state banks came from subsidies to interest rates could not be assessed, as they were not privy to the loan terms.

In summary, government-controlled banks are a more effective conduit of monetary policies than others. Yet, the economic efficiency of expedited delivery depends on the broader economic institutional context. The situation of Japan versus China is a case in point.

Macprudential Policy and Zombie Lending in Korea



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Macroeconomic policies are often a bit like drugs, so contends Professors Hoshi and Kim. According to them, such policies have to be used carefully as the side effects can be as bad as the problems they are supposed to cure.

In their study of South Korea during the last decade before the Global Financial Crisis, they believe that the country's seemingly successful attempts to arrest a boom in home prices may have unintended consequences. Specifically, they argue that thousands of poorly performing "zombie" companies may have benefited from the easy availability of cheap loans, at the expense of healthy firms and start-ups.

Zombie companies refer to otherwise non-profitable companies that stay in business only because banks continue to lend them money at artificially low rates. This was the situation in Japan in the 1990s when easy credit sustained many zombie companies. (Note, however, the result is now further refined based on the work by *Yupeng Lin*, *Anand Srinivasan* (both at NUS Business School, National University of Singapore) and *Takeshi Yamada* (University of Adelaide) reported in **Government-owned Banks and Monetary Stimulation**).

How did zombie companies come to have credit access in Korea? It first started with the booming Korean residential property at the beginning of the millennium. The average price of a condominium in Seoul grew by about one-third every year. Part of the reason for this phenomenal growth is the financial deregulation which gave banks new business opportunities. The share of household loans in total bank loans grew from 27 percent in 1999 to 46 percent in 2004.

In an attempt to stabilize home prices, South Korea engaged in macroprudential policies. According to the Bank for International Settlements, such policies use primarily "prudential tools to limit systemic or system-wide financial risk."

To curb speculation, Korean

regulators instituted several measures to discourage buyers from taking out big mortgages. In September 2002, buyers had to pay 40 percent of the value of a property, giving a loan-to-value ratio of 60 percent. In August 2005, the amount buyers could borrow relative to their wages – the debt-to-income ratio – was cut in some parts of the country where speculation was rampant. These measures seemed to be effective as the increase in residential prices slowed.

However, as the mortgage lending business dampened, banks began to explore other avenues of revenue. They began to lend to existing small- and medium-sized enterprises with a history to compensate for the dwindling home loans. Hoshi and Kim note that bank loans to companies rose by 14 percent in 2006, and by just under 22 percent in 2007. Some four-fifths of that growth were loans to SMEs.

However, banks were giving few loans to start-up firms, no matter how good their potential was. The share of the loans to firms 15 years or older grew from 32 percent in 2005 to 39 percent in 2010. In contrast, the share of loans to startups dropped from 5.2 percent to 3.4 percent. Credit was flowing to older established firms, many of which were performing rather poorly.

Banks continued to support such zombie companies even after the

Global Financial Crisis. To avert possible default, the Korean government convinced banks to give all SMEs more time – until June 2010 – to repay their loans as long as they paid interest on time. While this measure blunted the worst effects of the credit crunch, it also affected the competitiveness of

young companies.

The researchers conclude that South Korea's zombie firms created similar problems as that of their Japanese counterparts. They argue that the growth in the number of such zombie companies hampers the expansion of healthy firms, and widens the productivity gap between

zombie and non-zombie firms.

While South Korea's official medicine has controlled a disturbing increase in housing prices by restricting credit to housing, the side effect is that credit had expanded rapidly and worryingly elsewhere in the economy.

Understanding Bank Runs: Do Depositors Monitor Banks?



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The financial crisis has made members of the public more acutely aware of, what was once taken for granted, the financial health of banks. The Cyprus government's attempts to confiscate savings to save its financial system has exacerbated this need for market-based bank regulation where depositors take on a more active role in monitoring the health of banks.

While such market-based monitoring sounds promising, in reality, even financial experts can be surprised by the collapse of a bank. So it begs the question as to how

ordinary savers and borrowers can ascertain whether an institution is failing when experts can't?

Some have suggested that although savers and borrowers may not have enough information to initiate such monitoring, they can be prompted to do so with regulators' warning. If so, how does the public respond when regulators raise concerns of impending bank failures? Are some depositors more likely than others to act upon such warnings?

The failure in May 2009 of a small, co-operative bank in India (similar to a community bank in the United States) provided the setting for Professors Iyer, Puri and Ryan to study the dynamics of a bank run. They believe that their paper is the first to provide direct evidence of depositors monitoring banks.

The bank in question had eight branches and about 30,000 customers when it failed. Analyzing the bank's transactions since 2001, their findings indicate that the bank performed well until 2005 when management changed, and the bank started to take unwise risks. The regulator, the Reserve Bank of India (RBI) found that the bank had sold insurance policies without permission in 2007, and made unsecured loans of about US\$6m that eventually went bad. These risky moves precipitated the bank's later collapse.

By November 2008, the regulator found that the bank was insolvent.

On January 27, 2009, RBI partially restricted cash withdrawals. Deposits fell by about 16 percent during this period. Newspapers reported RBI's actions for the first time; which then saw deposits dropping by 25 percent in a week. On May 13, 2009, the central bank finally called in the receivers, and depositors could not take out more than INR1,000 (US\$16.25).

However, despite such warnings from the regulator, the responses from depositors varied. Iyer, Puri and Ryan distinguish between customers with small and large deposits. Only the former is protected by deposit insurance. Not surprisingly, the uninsured depositors were more likely to take their money out. Even this group was slow to take action. They did not act when news about bad loans broke out. They acted only after RBI sent in on-site auditors. Those who withdrew deposits tended to have greater access to inside information – such as bank employees, or their relatives. The researchers note that acting on such information was not illegal like trading in a company's shares would be, especially since the bank was not listed. The researchers also observe that depositors with loans withdrew money more sharply. However, those with a longer banking relationship were less likely to run.

Overall, the results indicate that uninsured depositors tended to engage in bank health monitoring.

Yet, such depositors have only limited time and ability to monitor, especially that of smaller

institutions. The researchers conclude that regulators' action and uninsured depositors have

complementary roles in monitoring banks.

Do Loan Officers' Incentives Lead to Lax Lending Standards?



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The sub-prime mortgage crisis in the United States was allegedly caused in part by bankers taking too much risks and not being sufficiently prudent with fundamentals while chasing after short-term rewards. Empirical evidence linking bankers' short-term incentives to poor risk taking will help to ascertain whether this relationship holds.

Professors Agarwal and Ben-David were given access to the results of a bank's experimental scheme to encourage its staff to make more loans by varying their salary. The employees were split into two groups. Half of the employees had their salary cut by 20 percent. But, injected into their compensation is an incentive component that was linked to the dollar value of loans the division made and the swiftness in loan processing. They formed the experimental group. The other half of employees formed the control

group where their salaries remained fixed at the same level as before.

While the bank did not randomly assign an employee to either group, the assignment was unrelated to past performance or career prospects. The two groups worked in the same geographical area, and the portfolio management practices and underwriting structures were also similar.

While neither group held the decision of granting a loan, these loan officers' recommendation and subjective assessment of the borrowers' character played an important part.

Agarwal and Ben-David analyze more than 30,000 applications for small-business loans made over two years, before and after the experiment started. They observe that officers on commission recommended more loans than their colleagues on fixed salaries. The researchers also analyze the behavior of the staff before the experiment started. There were no statistical differences between the behavior of the experimental and control groups of employees before the experiment began, nor between the control group's behavior before and during the experiment. However, the behavior among employees with the performance-related compensation changed after the program began.

Once performance-related pay started, the rate of origination for loans among staff on commission increased by 31 percent compared to the control group. Further, the size of the average loan rose by 15 percent.

As the period of the experiment was

too short to follow up on whether these loans were repaid or went bad, Agarwal and Ben-David applied industry-standard techniques to assess the loan quality. They find that the chances that borrowers will default increased by 28 percent. Worse still, net-present value analysis suggests that the extra loans were not profitable, hence increasing the chances of them going bad.

Some of the riskiest loans would not have been originated if there were no commission-based compensation. Also, the bigger the loan, the more likely the loan was of poor quality. Together, these effects accounted for about two-thirds of the increase in the probability of default.

There are some other interesting findings. Older, male loan officers on commission made worse decisions than their colleagues. Applications processed towards the end of the month tended to result in riskier loans. The loan officers might well have been trying to boost their bonuses before the end of each "bonus" window.

While the commission incentives generated more business for the bank, it came at a price – the quality of the business was compromised. The bank eventually abandoned the commission incentive and the staff was paid fixed salaries again.

Based on these findings, the researchers suggest that commission-based pay may have had an important role in the deterioration of underwriting standards during the credit boom in the early 2000s and the subsequent wave of delinquencies.

Identifying the Valuation Effects and Agency Costs of Corporate Diversification: Evidence from the Geographic Diversification of U.S. Banks



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Are bigger and more geographically diversified banks better? This is a time-honored business question, whose relevance today is made even more paramount as banks expand beyond their home domain.

A study was conducted by Professors Goetz, Laeven and Levin concerning U.S. banks and the establishment of subsidiaries outside their home state. Before 1978, U.S. bank-holding companies were restricted from opening subsidiaries in other states. To get around this, individual states negotiated bilateral banking agreements with other states. Deregulation was messy. But by the

middle of the following decade, the market for interstate banking had been significantly liberalized. It follows that in the 1980s and 1990s, many local banks in the United States expanded outside their home states.

This phenomenon brings to question the benefits of diversification vis-a-vis its costs. A bigger bank potentially means more revenues, economies of scale, and therefore, larger profits. Also, geographic diversification can mitigate overt dependence on single economic regions and thus, location-specific economic risks. Together, the value of the bank should increase. Yet, such an expansion creates challenges to monitoring and control. Outside the watchful eye of its head office, employees potentially have more leeway to pursue self-interest that can spell bad news for investors.

The typical difficulties in geographic diversification such as not being familiar with local culture, language and regulations are mitigated in this instance as the geographic diversification of U.S. banks is within a long-unified country rather than across national borders.

Goetz, Laeven and Levine examine the performance of stock market-listed bank-holding companies in 50 states and Washington, DC, from 1986 to 2007, giving approximately 32,000 quarterly observations altogether.

Bank valuation was measured by Tobin's q – the ratio of the stock market value of the company's liabilities and equity to the value on

the balance sheet of the assets (the book value). The higher the ratio, the more valuable is the company.

Their findings show that banks with diversifications outside their home states were bigger – about nine times the size of banks that stayed at home. Profits were larger too. But investors were not impressed. Geographically-diversified banks had lower valuations. On average, the Tobin's q of banks dropped noticeably once they started to diversify geographically. The wider the diversification, the bigger was the drop.

Performance also suffered. The proportion of bad loans (without repayment for 90 days or more) rose as diversification increased. Goetz, Laeven and Levine attribute this to the difficulty in monitoring borrowers as they are geographically further away from the bank's headquarters.

Lending to insiders, such as managers, directors, main shareholders and relatives, also grew. This suggests that the banks were being run increasingly for insiders rather than the wider ownership. This raises investor worries about agency issues such as the difficulty of monitoring managers' tendency to pursue self-interests rather than that of shareholders'.

The researchers conclude that the practical difficulties of monitoring performance created by diversification outweigh any theoretical benefits.

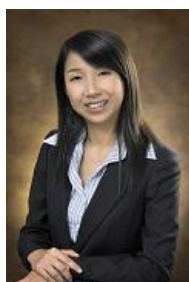
Consumption and Debt Response to Fiscal Stimuli: Evidence from a Large Panel of Consumers in Singapore



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Many Singaporeans received a pleasant surprise in the country's budget for 2011. The Singapore government announced that it would give two and a half million Singaporean adults nearly US\$1.2 billion in cash among them. Called the Growth Dividend, this cash payout is to help Singaporeans share in their country's economic growth, and hence, stimulate the economy. Foreigners working in Singapore were not entitled to the Growth Dividend.

The Growth Dividend gave Professors Agarwal and Qian an opportunity to address a controversial question in modern politics and economics – namely, what do people do with such windfalls? Do they use them in a manner that will stimulate the economy? Who should receive the windfall to optimize economic stimulation?

Agarwal and Qian analyze the financial transactions of 180,000 customers of one of Singapore's

leading banks. These transactions included credit card spending, credit card debt, and debit spending. They compare the behavior of Singaporeans who received the Growth Dividend with foreigners living and working in Singapore who did not receive the payout.

A typical qualified Singaporean received between US\$428 and US\$624, paid directly into his or her bank account. This represents 18 percent of monthly median income in Singapore in 2011. In all, the bonuses total about 12 percent of Singapore's monthly aggregate household consumption expenditure in 2011.

Previously, other countries have used tax rebates and other one-off payments to persuade consumers to spend more in difficult times. For example, President George W. Bush in 2001 gave two-thirds of American households an average of US\$500 each – the equivalent of 1.5 percent of annual U.S. economic output.

But critics, including Nobel Prize-winning economist Milton Friedman, have questioned the effectiveness of such measures. Friedman's Permanent Income Hypothesis suggests that a one-off payment will be ineffective in changing consumption patterns. Transitory fiscal windfalls will have limited benefits to the economy as consumers will not be able to sustain their spending unless they change their expectations about their future incomes.

The findings by Agarwal and Qian indicate that with the Growth Dividend, consumption rose significantly. For each dollar received, consumers spent an average of 90 cents (aggregating across different financial accounts)

in the 10 months after the announcement of the Growth Dividend. One quarter of the expenditure was spent using debit cards, the rest with credit cards. They also find a strong announcement effect. Consumers started to increase spending during the two-month announcement period prior to the cash payout.

They also observe that consumers use credit cards to spend during the two months after the announcement but before the disbursement. This is intuitive since they did not have the cash in hand. Thus, consumers borrowed from their future selves. But once they received the money, they increased their spending using debit cards while the use of credit cards declined moderately before reverting back to the pre-announcement level.

Agarwal and Qian also show that consumption response varied across spending categories and across individuals. Consumption rose primarily in the non-food, discretionary category and for low-income households. Young, unmarried, non-college-educated consumers relied more on debit card spending in their consumption response, probably because of liquidity constraints.

Their results have implications for future policy actions concerning how government should use surpluses. Economists argue that tax payers should get back surpluses whenever possible as governments may otherwise engage in wasteful spending. But, is there a particular profile of consumers who should receive such surpluses for optimal stimulation of the economy? According to Agarwal and Qian's results, low income households spend the money while high income

households do not. Hence, stimulus programs such as cash handouts

may be more effective in stimulating the economy when targeted at low

rather than high income households.

Transaction Tax and Speculators



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One of the offshoots of the Global Financial Crisis is a revived interest in the notion of transaction taxes to calm volatile markets. In particular, attention has focused on the “Tobin tax” that Nobel prize-winning economist James Tobin suggested more than forty years ago.

Tobin's proposal is a tax specifically on international currency trading. However, some politicians and analysts have argued for extending such taxes to all forms of financial transactions given their possible benefits.

Raising transactions tax reduces speculative trade. But, this is a double-edged sword. The tax also discourages both informed and

uninformed speculators. The former makes a market efficient while the latter causes noisy volatility and distorts prices.

There are several types of transaction taxes, one of which is stamp duty levied on buyers and sellers for property transactions.

In Singapore, a change in tax regulations for property transactions for a particular submarket afforded Professors Fu, Qian and Yeung to investigate whether there are selected segments of the property market that are varying affected by the transaction tax.

In the wake of the Asian financial crisis in the late 1990s, Singapore had eased regulations on paying stamp duty for sales of homes in condominiums that were still being built, or for which work had not yet started. The objective was to stimulate activity.

Under the new regulation, buyers can defer paying the tax until the property is completed. Typically, that is less than or about three years after sales started.

Property speculators found this appealing. The presale contracts could be traded, and so “flippers” or speculators could buy them with little cash upfront and potentially sell them profitably before a project was finished. There is no capital gains tax in Singapore.

Speculation in such presale contracts boomed in the first decade of the new century in Singapore. But in December 2006, the government unexpectedly brought back the requirement to pay stamp duty immediately once a contract-for-sale has been agreed.

This affected speculators sharply. They had been used to putting up just 10 to 20 percent of the purchase price for a contract. With the change in when stamp duty is to be paid, such speculators have to pay another 3 percent of the purchase price in stamp duty upfront on top of the down payment – a big extra cost that made, in theory, such trades unattractive.

Fu, Qian and Yeung examine more than 180,000 property transactions in Singapore from the start of 2005 until the end of 2010. More than half of them were presales of uncompleted condominiums. The rest were spot market transactions. These provide a control group to compare with.

The researchers find that after the change in stamp duty rules in 2006, the number of presale market transactions declined, the sharpest being flipper trades. Flipper trades are speculative trades – the buyer buys a property that has not been built but flips it shortly after before completion. Most properties take three years to be built but flippers will hold the property for less than two years and then sell off. Their findings also show that presale market's price volatility increased after the change in stamp duty rules. Activity on the regular market for second-hand properties was not affected.

More interestingly, the researchers show that the rise in price volatility and drop in transaction volume were also evident in a previous underpriced market. This market is filled more with informed speculators than previously overpriced markets. Short-selling properties are all but impossible;

informed traders are mostly active only in the underpriced market where they can “buy low sell high.”

Based on their findings, the researchers conclude that raising transaction costs in property markets is more discouraging to

informed traders with negative consequences on market efficiency. Using the transaction tax to stabilize prices is cautioned.

Why Investors Do Not Buy Cheaper Securities: Evidence from a Natural Experiment



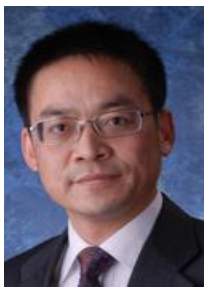
Kalok Chan

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Buy low and sell high. This is how one makes a profit. And obviously, the lower price one can buy at, the bigger the potential profit.

As simple as this may sound, it is puzzling then that local investors in mainland Chinese stock markets chose to pay more for shares traded in renminbi than to trade otherwise identical shares in the same companies but priced lower in other currencies.

Some Chinese companies are characterized by classes of shares

that can be traded in different places such as Singapore, Hong Kong and New York, in different currencies and, at different prices.

Historically, there was a strict separation between foreign and local investors when mainland stock markets opened in the early 1990s. A-shares were for domestic investors; and B-shares were for foreigners (traded in Hong Kong dollars in Shenzhen and in U.S. dollars in Shanghai).

In 2001, Beijing allowed domestic investors to buy B-shares. However, demand for B-shares was lukewarm. A-shares were more popular and traded at a premium over their foreign-currency counterparts, even though holders of B-share had the same rights and claims on the issuing companies' cash flows and assets. In an efficient market, rational investors should therefore buy the cheaper B-shares as they would give superior returns to A-shares, and the prices of both types of shares should equalize. However, this was not so.

This unexpected outcome prompted Professors Chan, Wang and Yang to investigate why. They analyze data from brokerages from 2001 to 2005 to understand the behavior of investors who did and did not buy the B-shares. Only 4 percent of the 20,000 investors who held A-shares prior to the opening of the B-share market bought B-shares in that time.

While some investors may have been worried about the risk of the Hong Kong and U.S. dollars weakening sharply, thereby

reducing the value of their B-share holdings, Chan, Wang and Yang argue that during this period, the renminbi was pegged to the U.S. dollar, and there was little sign that Beijing would revalue the currency or let it trade more freely abroad.

Instead, their results suggest that the phenomenon of “portfolio inertia” may explain this unpopularity of B-shares. Investors tended to give too much weight to their past experience, and were reluctant to try to widen their portfolio to previously unfamiliar circumstances.

Evidence is also strong that investors' past experience in trading in specific class of shares explained subsequent behavior. Specifically, A-share investors continued to buy A-shares; while B-share investors tend to shun A-shares. There were also nuances. The longer investors had traded in A-shares, the more likely they were to trade in B-shares; and vice versa.

Beijing has since signaled that B-shares may soon be a thing of the past. In anticipation of this demise, some companies with B-shares such as China International Marine, Vanke, and Lizon Pharmaceutical, have also listed H-shares in Hong Kong. Others have abandoned B-shares to concentrate on A-shares, and others have been buying back B-shares.

This is good news for investors who have sold their A-shares and entered the B-market as the price of foreign currency-denominated securities should rise.

Shell Games: Have U.S. Capital Markets been Harmed by Chinese Companies Entering via Reverse Mergers?



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Chinese companies whose shares trade on U.S. stock markets may have been unfairly vilified. To investigate this, Professors Lee, Li and Zhang analyze Chinese companies that had their initial public offering (IPO) on the U.S. stock exchanges from 2001 to 2011.

Many Chinese firms enter the U.S. stock market by way of a reverse merger in which moribund shell companies are bought. Thus, Lee, Li and Zhang pair each of these Chinese companies with American counterpart companies bearing similar characteristics and stock market listing. They also examine Chinese firms that are listed but not via reverse mergers to determine whether reverse-merger listing influenced performance. The first three years of performance after listing are studied.

Their findings demonstrate that as a whole, although reverse-merger companies performed badly, it was no worse than firms that were not listed through a reverse merger. Contrary to negative publicity regarding reverse-merger Chinese companies, these companies outperformed their American counterparts. When they entered the stock market, they were better capitalized, more profitable, more mature and create more cash. Over the three years after listing, these Chinese companies were more likely to survive and move on to more mainstream exchanges than their American counterparts.

The question of fraudulent practices mars the reputation of U.S.-listed Chinese companies. To address this, Lee, Li and Zhang examine 52

Chinese reverse-merger companies that the Stock Exchange Commission (SEC), the American media and short-sellers have accused of fraudulent practices. They track the status of the firms until October 2012 and compare their performance with their American counterparts and Chinese reverse-merger companies not accused of fraud.

Their results indicate that there were proportionately more reverse-merger Chinese companies, including those implicated in fraud, that survived or were promoted to more senior markets than American companies listed via a reverse merger. In short, these U.S.-listed Chinese companies appeared to be less risky and in better health.

Hence, despite the negative publicity, the researchers conclude that there is little evidence that Chinese reverse-merger companies have been detrimental to the U.S. capital markets. This calls into question the 2011 decision by the U.S. regulator, SEC, to warn investors not to invest in Chinese firms that have joined U.S. stock markets by way of a reverse merger. That decision froze the flow of Chinese companies listing in the U.S. As a result, some Chinese firms have delisted by taking themselves private.

Employee Inside Debt and Firm Risk-taking: Evidence from Employee Deposit Programs in Japan



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Companies usually borrow money through bank loans or by issuing bonds. But in Japan, some firms borrow from their workers through such programs as the Employee Deposit Programs (EDP).

EDP emerged in Japan in the nineteenth century. Employees save their money with their employers in much the same way as they deposit money with a bank or other institutions, but with better rates of interest. Typically, the money is deducted from wages.

Proponents claim that such programs strengthen the bond of trust between employees and owner management. However, critics argue that EDPs are riskier than traditional savings accounts, and that employees may be coerced into depositing their money. While in theory, such savings can be withdrawn at any time; there is

strong social pressure not to do so.

From the employers' perspective, EDPs offer a lower cost of borrowing. From the employees' perspective, they are incentivized to monitor the financial health of their employers to ensure that their savings are safe. Also, compared to external lenders, employees may have inside knowledge to better ascertain the financial health of the company.

As trust is particularly important in Japanese society, it is less likely that employee savings will be jeopardized as such abuse comes at a very significant social cost.

In 2003, a legislation called the New Corporate Rehabilitation Act was introduced. The new legislation limited protection for employee EDP deposits in the event of employer bankruptcy. Only the larger of the past six months' salary before the reorganization date or one-third of the existing deposits will be repaid.

The introduction of the legislation created a natural experiment for Professors Sudipto, Lin, Yamada and Zhang to investigate the direct effect of employees' inside debt holdings on firm risk and the cost of debt.

They gather information from 2,104 listed Japanese firms from 1998 through 2007, including EDPs, relations with banks, and whether the companies were independent or members of a keiretsu – the large

loosely grouped conglomerates that dominated the Japanese economy since the end of the Second World War. Financial and utilities firms were excluded because such organizations were usually regulated heavily.

As expected, employees withdrew deposits once the new law came into effect. This resulted in one-fifth of firms terminating the savings scheme in the year after the law was implemented.

Sudipto and his colleagues also observe that among firms with EDP, the higher the EDP deposits per employee or in relation to the companies' assets, the lower were the total risk, systematic risk and idiosyncratic risk. Their findings are also consistent with prior findings on the effects and benefits of other insider debt.

Further, using keiretsu and main-bank affiliation as proxies for the strength of banking relationship, the researchers find that the risk-reducing effect of EDP was only concentrated among non-keiretsu firms and firms without any main bank. This implies that the discipline from employee inside debt is reduced when firms are closely monitored or insured by banks.

Finally, their findings also suggest that the level of employee deposits can predict the level of leverage. The lower risk of firms with EDP may help them to borrow at more favorable interest rates.

Non-executive Employee Stock Options and Corporate Innovation



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In the United States, stock options for executives in hi-tech industries are a common and popular way to incentivize senior executives to make the company more innovative and successful. However, such stock options are less common for rank-and-file employees.

But will offering stock options to lower-ranked employees boost innovation as well? To address this, Professors Chang, Fu and Zhang analyze the top 1,394 biggest companies listed in the United States concerning their financial and stock market performances, and their use of employee stock options from 1998 to 2003. Some of the companies had no patents and some did not offer options.

Proponents of employee stock options argue that by linking remuneration to the stock market performance of a firm, it incentivizes employees to do their best. They

are also, to some degree, risk free. If the share price does not rise above the price at which the option is granted, employees do not have to exercise the option. Employers can also grant options to supplement salaries when they are short of cash.

However, there are also drawbacks. Options can encourage managers to act recklessly by boosting the share price without regard to the long-term health of the company. They may not be suitable for non-executives in some industries where low-ranked employees feel they are too junior or unimportant to help the business meaningfully. In such cases, these options may not spur performance. There are also situations where lazy worker option-holders may contribute little and instead rely on their harder-working colleagues to contribute to their employer's success. But, these drawbacks do

not address whether non-executive stock options encourage innovation.

Measuring innovation by the contribution and value of each patent such as the number of citations it accumulated, Chang, Fu and Zhang conclude that non-executive stock options improve innovation. The number of patents produced and the quality of the patents captured by citations increased with non-executive stock options.

Further, the effect of non-executive stock options on innovation is enhanced when employees' input to innovation is more important and in smaller firms, where free-riding among employees is less pronounced. Their findings also suggest that the more non-executives are included in the plans, and the longer the options last, the more such options have a positive impact on innovativeness.

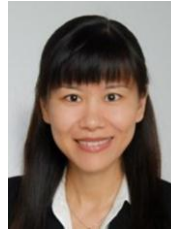
Defined Contribution Pension Plans: Sticky or Discerning Money?



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is negligible.

Professors Sialm, Starks and Zhang embark on a study to ascertain whether it is true that such investments are "sticky". Or, do members try to "chase" performance by adjusting their holdings? How good are they at achieving such goals?



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Defined Contribution pension plans (DC) help people to save for their retirement, either individually or as part of a larger employee scheme where they work. There are several mutual funds available within a DC and employees, as members, can choose which mutual funds to invest in. Members and employers then make regular contributions to the plan. Given the regularity of such contributions, the traditional view is that DC funds are stable and money flowing in and out of its mutual funds

Data from various academic and industry sources such as CRSP and P&I databases for the period between 1996 and 2009 are compiled, together with information from annual reports. This covers 1,078 distinct equity funds, and contains 5,808 fund-year observations over the same period.

Based on their initial analysis, the researchers observe a positive correlation between the total net assets of a mutual fund and the

proportion of DC investment. In other words, it appears that DC plans focused on larger funds. Some negative correlations are also observed. DC investors seemed to prefer younger funds, with low costs and low turnover.

The variability of DC flows is also examined. These flows were more volatile than their non-DC counterparts. The standard deviation of annual DC flows exceeded the standard deviation of non-DC flows by between 23.6 percent and 52.2 percent per year, depending on whether the data were adjusted for other fund characteristics.

Further, autocorrelation – a measure of how much present behavior is influenced by the past – was also lower for DC money. Further analyses are conducted by splitting the mutual funds into three equal-sized groups for products with low, medium and high proportions of DC money. The researchers find that the higher the

ratio of DC to non-DC holdings, the more volatile the funds were. Collectively, these findings suggest that contrary to conventional wisdom, DC funds are not stable but are less sticky than non-DC funds.

Additional analysis suggest that DC investors were more sensitive to extreme good or bad performance compared to non-DC investors, and adjusted their fund holdings accordingly. DC savers and their sponsors (which usually refers to the companies or employers that set the DC plan for their employees) monitored mutual funds more closely than traditional mutual fund investors.

The results indicate that in contrast to retail investors, the performance-chasing phenomenon of DC pension plans do not harm their long-term performance prospects.

Sialm, Starks and Zhang also observe that mutual funds with relatively large DC assets tended to

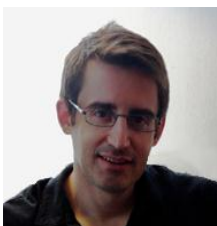
attract relatively more non-DC assets; and, conversely, mutual funds with relatively large non-DC assets tended to attract relatively more DC assets.

These findings offer several implications. First, it seems that the sponsors of DCs can help members of their scheme fight inertia by removing poorly performing funds from the portfolios and adding well-performing replacements to choose from.

Second, this plan sponsor role has implications for the composition of the fund industry, particularly given the growth in DCs.

Third, it appears that mutual funds can diversify their net fund flows by offering their funds to both DC and non-DC investors. However, portfolio managers may find it challenging to serve both customer segments as they have such different tax statuses.

Does Academic Research Destroy Stock Return Predictability?



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Ever so often, a quirk in the behavior of a security or a financial market gets noticed, making it possible for an investor to predict somewhat its performance, thus allowing him a better than average chance to profit from this anomaly. However, this window of opportunity

is shortlived as efficient markets theory says that once such mispricing trends are identified and publicized, they should disappear quickly.

Take a simple example: if investors learn that certain types of shares, on average, rise in a particular month, they will then buy these shares cheaply the month before and sell them later at a profit when once they have risen in price. But the more investors buy these shares, the higher the price goes; and the more they sell, the lower the price goes. Eventually, the mispricing will disappear.

However, research by Professors McLean and Pontiff raises a mystery. They find that some quirks persist for much longer than expected.

Some 82 financial anomalies

identified in peer-reviewed academic journals are studied. These anomalies date back to 1972. Three stages are identified as part of the analyses. The first stage is the sample period before the anomaly was noticed. The second stage is the time between the anomaly was identified and the publication of that anomaly; and the third stage is after publication of the anomaly.

McLean and Pontiff examine changes in the volume and monetary value of the securities traded and their volatility to see if there is a link between the publication of the anomaly and these trading indicators. Short-selling is also included to assess if investors anticipate the predicted falls in prices.

Their results show that trading

activity and volatility increased after publication of the anomaly, indicating that such publication drew attention to the anomaly which would otherwise have remained undetected.

Despite such increased volume and volatility, returns for the average portfolio declined by about 35 percent post-publication. Further analysis suggests that statistical biases contributed about 10

percentage points to the fall. Mispricing seemed responsible for at least a decline of 25 percent. This is a far smaller drop than what efficient market theory suggests there should be.

McLean and Pontiff also observe that different types of portfolios have varying rates of return. Not all anomalies can be taken advantage of to show a profit. Portfolios of larger stocks, stocks with smaller

bid ask spreads, and stocks with high dollar volume decline faster post-publication, as do those with shares that pay dividends.

Based on their preliminary findings, McLean and Pontiff conclude that although mispricing may be corrected somewhat when an anomaly is identified, there are circumstances when the market is inefficient, resulting in mispricing to continue.

Market-making Obligations and Firm Value



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Stock markets sometimes fail. Buyers panic and are too frightened to continue trading. Sellers struggle to find purchasers.

To minimize market failure, some exchanges have in place Designated Market Makers (DMM). Market makers are dealers who undertake to buy or sell at specified prices at all times. They provide liquidity which competitive markets do not. Such liquidity serves to ensure continued trading and minimize market failure.

However, there has been scant research on the value and costs of DMMs. Given its important role as a

liquidity provider, Professors Bessembinder, Hao and Zheng examine the effects and performance of DMMs.

Many modern stock markets operate somewhat like an electronic version of small ads in newspapers. Buyers and sellers publish what they want and investors contact them if the price is right. There are also limit orders to provide liquidity, as characterized by the Hong Kong and Shanghai stock markets.

Other stock markets such as Paris, Amsterdam, Stockholm, and Oslo, have market makers. They are somewhat like second-hand car dealers who buy vehicles and maintain an inventory of items ready to sell.

Market makers are useful in times when share prices are fluctuating wildly, and in particular, falling sharply. They are often required to provide liquidity to the market by trading in shares when other investors are not willing to buy or sell, or to narrow the bid-ask spread – the gap between the price they will pay for shares and will sell them at. When spreads are wide, they are a symptom of market inefficiency as they suggest that buyers and sellers do not have access to the same information.

Based on their findings,

Bessembinder, Hao and Zheng demonstrate that companies benefit by paying a DMM to trade in its shares. The increase in the value of the firm is greater than the costs of compensating a market maker to provide liquidity and shrink the bid-ask spread.

Can liquidity be provided through automated high-frequency trading of shares? Such high-frequency trading of shares, sometimes at thousands of times a second, can possibly keep markets liquid. Some argue that such algorithmic buying and selling may even reduce or destroy the need for markets makers.

But the “flash crash” of May 6, 2010 disproved this argument. On that day, share prices in New York fell by six to eight percent in a few minutes, and then recovered again almost as quickly. Research suggests that some high-frequency traders stopped providing liquidity, and instead started to demand it. Media reports suggests that some algorithmic computers were simply disconnected until the market calmed down.

As a result, the Stock Exchange Commission in the U.S. is reportedly considering requiring high-frequency traders to supply liquidity.

CMBS Subordination, Ratings Inflation and Regulatory-Capital Arbitrage



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Media accounts of the origins of the global financial crisis from 2007 to 2009 often allege that credit rating agencies are guilty of “ratings inflation” when valuating mortgage-backed securities (MBS).

As a result, investors buy commercial mortgage-backed securities (CMBS) that in retrospect, after the investments go bad, are apparently far riskier than they are led to believe.

Historically, the general public does

not trade MBS. Instead, sophisticated investors do. It is said that insurance companies, mutual funds, and commercial banks own 90 percent of CMBS investments. Are they misled, or do they behave rationally? Are credit rating agencies to be blamed for their overly-optimistic ratings? To assess whether rating bias is the key driver for the melt down of subprime and MBS markets during the recent crisis, Professors Stanton and Wallace analyze 587 CMBS deals from 1995 to 2008.

CMBS offers an interesting study because of an important regulatory change on 1 January 2002 – the U.S. Federal Reserve relaxed its assessment of the risks of holding CMBS.

Prior to 2000, the typical commercial mortgage had a credit rating of BBB. This means it is considered “lower medium grade” investment – not quite junk, but still a long way from a prime investment.

However, packaging together such mortgages creates, at least in theory, an investment with lower risk of default than the individual mortgages. Hence, credit rating agencies started to consider them AAA prime-grade securities.

Initially, the Federal Reserve was skeptical. It would not consider CMBS with AAA ratings as reliable enough to be carried on balance sheets as risk-based capital. That changed on 1 January 2002 when the Federal Reserve allowed them to treat all CMBS with the best ratings at face value. This change benefited the banks to the tune of \$3 billion.

As a result, sophisticated investors indulged in regulatory-capital arbitrage. In other words, they bought more CMBS investments. This was considered perfectly rational behavior.

However, Stanton and Wallace conclude that such CMBS investments overleverage investors, and make them overly sensitive to changes in fundamentals as it did during the Global Financial Crisis. They suggest that regulators are partly to be blamed for excessive investments in such securitized bonds. The regulator's decision to loosen its rules on CMBS is a big factor in creating the subprime crisis. How about rating agencies? While rating agencies have been blamed by many for their overly-optimistic ratings, it is difficult to pin down their role unambiguously.

About the ABFER

The Asian Bureau of Finance and Economic Research is a new institute founded by academics from Asia, North America, and Europe. The Bureau intends to create a virtual and independent network of high-quality academics akin to the NBER/CEPR, as well as conferences and workshops. The objects of the Bureau include:

- *to promote Asia-Pacific oriented financial and economic research at local, regional and international levels;*
- *to connect globally prominent academic researchers, practitioners and public policy decision-makers on Asia-Pacific related financial and economic issues; and*
- *to enhance the research capabilities and development of strong clusters of finance and economic research groups in academic institutions and other institutions in Singapore and Asia-Pacific.*